Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENRY LIEBERMAN

Appeal No. 1999-1852
Application No. 08/701,242

ON BRIEF

Before KRASS, RUGGIERO, and DIXON, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-30, all of the pending claims.

The invention is directed to retrieval of computer-stored documents and, more particularly, to automated assistance in browsing stored resources as, for example, on

the Internet. The inventive system browses the same search space as a user but does so faster and guided by the user's past behavior. Without interruption of the user's activities or explicit requests for stated preferences, the invention provides an observational, rather than conversational, mode of assistance and identifies additional items likely to be of interest to the user based on previous choices made by the user.

Representative independent claim 1 is reproduced as follows:

> 1. Apparatus for identifying electronically encoded data items of interest to a user, the data items being stored on at least one computer and being identified by an item identifier, at least some of the data items being linked to at least one other data item by specifying the identifier of the at least one other data item, the apparatus comprising:
>
> a. a computer memory;
>
> b. interactive retrieval means comprising:
>
> i. means responsive to a user-provided identifier for causing retrieval to the computer memory and display of the data item specified by the identifier; and
>
> ii. means responsive to a user's selection of an identifier appearing in an already-retrieved data item for causing retrieval to the computer memory of the linked data item specified by the identifier appearing in the already-retrieved data item;
>
> c. observational means, responsive to the interactive retrieval means, for identifying user preference criteria through analysis of a user's operation of the interactive retrieval means to retrieve data items but without interruption of said operation;

d. automated retrieval means for causing automatic retrieval to the computer memory of a plurality of new data items, each new data item being linked by a sequence of at least one identifier to a user-selected data item or a data item linked thereto;

e. means for screening the items retrieved by the automated retrieval means in accordance with the preference criteria to produce a search set; and

f. means for reporting the search set to a user.

The examiner relies on the following references:

Sotomayor (Sotomayor)	5,708,825	Jan. 13, 1998 (filed May 26, 1995)

Claims 1, 2, 6-18 and 22-30 stand rejected under 35 U.S.C. § 102(a) as anticipated by Kupiec. Claims 3-5 and 19-21 stand rejected under 35 U.S.C. § 103 as unpatentable over Kupiec in view of Sotomayor.

Reference is made to the briefs and answer for the respective positions of appellant and the examiner.

OPINION

With regard to the rejection under 35 U.S.C. § 102(a), the examiner takes the position that each and every limitation of independent claims 1 and 17 is disclosed by Kupiec. The examiner identifies the “identifying electronically encoded data items of interest to a user” as being disclosed at column 8, lines 1-19 of Kupiec. The “data items being stored on at least one computer and being identified by an item identifier”

is said to be disclosed at column 8, lines 1-19 and column 9, lines 21-42 of the reference. The recitation of “at least some of the data items being linked to at least one other data item by specifying the identifier of the at least one other data item” is said to be shown at column 8, lines 1-19, whereby the primary query construction subsystem supplies the document identifiers for the answer extraction subsystem. The examiner identifies the claimed “computer memory” at column 8, lines 1-19 of the reference, and the claimed, “interactive retrieval means comprising means responsive to a user-provided identifier for causing retrieval to the computer memory and display of the data item specified by the identifier”, at column 8, line 59-column 9, line 5. The “means responsive to a user’s selection of an identifier appearing in an already-retrieved data item for causing retrieval to the computer memory of the linked data item specified by the identifier appearing in the already-retrieved data item” is said to be taught at column 8, lines 1-19, and column 8, line 59-column 9, line 5 of Kupiec. The examiner identifies the claimed “observational means...” as being taught at column 2, lines 39-50 of the reference and the claimed “automated retrieval means...” is said to be taught at column 2, lines 39-50, and column 8, lines 1-19, and line 59 to column 9, line 5 of

Kupiec. Finally, Column 8, line 59-column 9, line 5 and column 9, lines 55-61, and

column 10, line 65-column 11, line 10 of Kupiec are alleged to disclose the claimed "means for screening the items retrieved..." and the claimed "means for reporting the search set to the user."

Thus, the examiner contends that the entire subject matter of the instant independent claims is anticipated by a few lines of Kupiec, to wit, column 2, lines 39-50, column 8, lines 1-19, 59 et seq., column 9, lines 1-5 and 55-61, column 10, lines 65 et seq. and column 11, lines 1-10.

Appellant's position is that Kupiec is directed to answer extraction, whereby the system takes a user-supplied question and a given set of relevant documents and generates answer hypotheses, finding these hypotheses in that given set of relevant documents. In contrast, appellant argues, the instant invention follows links between documents to locate *other* documents of possible interest to the user. Thus, while the instant invention follows links among documents, retrieving new items of possible interest based on a sequence of links to a user-retrieved document, Kupiec has no notion of document linkage or its exploitation.

At pages 6-13 of the principal brief, appellant identifies specific claim limitations not met by Kupiec. The examiner contends that while Kupiec may differ from the

instant invention in its object, appellant is reading the claim language much more narrowly than a reasonable interpretation would require.

Our review of Kupiec and the instant disclosed invention reveals that the invention disclosed by each is, indeed, very different, and for different purposes. Kupiec uses a two step approach to improve upon the prior art whereby documents were retrieved strictly by phrases literally found in a search query. Kupiec first uses a primary query construction to retrieve documents likely to contain an answer to a user's question. Then, Kupiec uses an answer extraction process in order to generate answer hypotheses, which may be very different than the original query, though relevant thereto, and then finds these hypotheses within the same, original set of documents that were retrieved by the user's query. Kupiec makes no mention of the Internet. On the other hand, the instant disclosed invention is concerned with linking to other documents on the Internet which might be of interest to a user, linking those documents autonomously, without interruption of the user's activities and providing an observational, rather than a conversational, mode of assistance. The autonomous browsing is guided by a user's past behavior in reviewing documents. Identification of preference criteria may be based on an item level, such as assessing the importance of a document by noting the length of time, relative to the length of a document, the user

spends reading the item, the number of hyperlinks in the item that are used by the user, how often the user returns to a particular document, etc. Criteria might be based on content as a key preference item, as in the number of times there is a recurrence of different items accessed by the user. But, in any event, the assistance, i.e., identification of additional items that may be of interest to the user, offered by the invention of the instant disclosure is based on user behavior.

Thus, we certainly recognize the differences between the invention disclosed by Kupiec and that set forth in the instant disclosure. The question, however, is whether any of those differences are set forth in the instant claim language. It is the examiner's position that the claim language does not distinguish over the disclosure of Kupiec.

While we would agree with the examiner that the instant independent claims do not require any connection to the Internet, that there is no recitation of "browsing," and that the claim language referring to "the linked data item" may be broad enough to cover a linkage between an identifier and any record, or data, we will not sustain the rejection under 35 U.S.C. § 102(a) because there is sufficient language in the independent claims to distinguish over Kupiec.

Independent claims 1 and 17 call for some data items being linked to at least one other data item by specifying the identifier of the at least one other data item. Then, responsive to a user's selection of an identifier appearing in an "already-

retrieved" data item, retrieval is caused of the "linked data item specified by the identifier appearing in the "already-retrieved" data item. The claims also call for automatic retrieval of a plurality of "new data items" with each new data item being linked by a sequence of at least one identifier to a user-selected data item or a data item linked thereto.

The examiner identifies column 8, lines 1-19, of Kupiec as providing for the claimed "identifier." It is true that at line 15 of that cited portion of Kupiec, the reference does recite "document identifiers" retrieved from the text corpus. However, this refers to a document identifier retrieved in response to subsystem 10 sending queries via channel 14 to information retrieval subsystem 11. Once this document or document identifier is retrieved, there are no further documents, or "data items" that are linked by an identifier appearing in that "already-retrieved" data item, as required by the instant claims. Since we find, in Kupiec, no teaching of an "identifier," as required by the instant claims, Kupiec also cannot show an automatic retrieval of a plurality of "new data items," with each "new data item" being linked by a sequence of at least one identifier to a user-selected data item or a data item linked thereto, as also claimed.

The answer extraction subsystem of Kupiec generates and verifies answer hypotheses by operating on a set of relevant documents but there does not appear to

be any further identification of documents linked to the set of original relevant documents. Accordingly, we do not find that Kupiec anticipates the instant claimed invention.

Sotomayor is employed by the examiner only for its references to the Internet and does not provide for the deficiencies of Kupiec, as noted supra. Accordingly, we will not sustain the rejection of claims 3-5 and 19-21 under 35 U.S.C. § 103 over the combination of Kupiec and Sotomayor.

The examiner's decision rejecting claims 1, 2, 6-18 and 22-30 under 35 U.S.C. § 102(a) and claims 3-5 and 19-21 under 35 U.S.C. § 103 is reversed.

REVERSED

ERROL A. KRASS Administrative Patent Judge	)
JOSEPH F. RUGGIERO Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
JOSEPH L. DIXON Administrative Patent Judge	)

eak/vsh

PATENT ADMINISTRATOR
TESTA, HURWITZ & THIBEAULT, LLP
HIGH STREET TOWER
125 HIGH STREET
BOSTON, MA 02110